Questions from Nov 15, 2012 EPA Meeting

1. Based on the direct area of the Cap, are there any concerns of the tugboat activity creating unsuspecting problems such as subsidence?

Subsidence in the area was caused primarily by excessive groundwater pumping in the past. The subsidence district has been created, and new groundwater management practices have limited the amount of subsidence in the area. Tugboat activity could create erosion concerns for the cap. The cap was designed to limit these potential concerns (eg, using large rocks for the armored cap), and regular inspections including surveys are conducted to identify potential problems. When identified, a maintenance program is instituted to complete repairs. [Valmicheal can probably say something a bit more detailed than this].

2. Does the EPA have any future concerns for subsidence in the immediate area of the Cap?

Subsidence in the area was caused primarily by excessive groundwater pumping in the past. The subsidence district has been created, and new groundwater management practices have limited the amount of subsidence in the area.

3. When will the responsible party respond regarding the Cap assessment?

The responsible party is conducting an investigation of the erosion of cap materials. Concurrently, the EPA has asked the Army Corps of Engineers (ACOE) to complete their own study of the cap. This study by the ACOE will be finalized in _____.

4. Why was the responsible party controlling the design and construction of the Cap?

The Responsible Party is responsible for designing and instituting all investigation and remedial activities necessary for the site. All of this work is overseen by the EPA. So while the responsible party is responsible for designing and doing the work, the EPA is in control of what actually occurs.

5. Why does TDHS allow more dioxin (1000 per trillion) than other states for residential exposure?

The Texas Department of State Health Services (DSHS) generally does not set residential soil clean-up levels, so it is somewhat of a mischaracterization to say we "allow" certain levels of dioxin in residential soil. DSHS uses the same residential soil screening value (called the chronic child environmental media evaluation guide or chronic child EMEG) used by the Agency for Toxic Substances and Disease Registry (ATSDR). This soil screening value for a child is 50 pg/g or ppt for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (commonly called dioxin). For an adult exposure (possibly in an occupational setting but generally not involving residential soil), DSHS and ATSDR use a soil screening value (the chronic adult EMEG) of 700 pg/g or ppt. DSHS evaluates other non-residential soil settings, where children may be exposed, on a case-by-case basis, considering the potential exposure frequencies and durations and the ages of the children who may be exposed to determine the potential risks for the specific exposure scenario.

6. Why is the objective or purpose of the Cap in place to get to a solution in 7 to 10 years when clean-up should be more immediate?

Based on the risk assessments that were completed, the greatest risks were related to direct contact with the waste material. Therefore, the cap was quickly installed. However, in order to make sure that the contamination is addressed appropriately, it is necessary to do a complete study to make sure that we understand exactly what contamination is out there, where it is going, and who might it effect. That is the purpose of the RI. It is only then that it is possible to do a good evaluation of what are the different ways that they site could be cleaned up, and of all those different ways what is the best. That is the purpose of the feasibility study. So, the purpose of the cap was to address the highest risks as quickly as possible, with more time and care taken to characterize the site and identify a long-term solution.

7. Can EPA do the clean-up directly? Under what conditions?

The EPA oversees all of the cleanups, but the EPA only conducts cleanups directly when there is no responsible party that is able to pay for the cleanup themselves.

8. Why is not one of immediate solutions to…..build a bulkhead surrounding the cap, dig out the dioxins, transport to a designated site contained area and not waste time in preliminary studies, cap assessments, etc? The longer the wait for clean-up the greater the health risk?

The greatest risks were related to direct contact with the waste material. Therefore, the cap was quickly installed in order to mitigate this serious risk. However, in order to make sure that the contamination is addressed appropriately, it is necessary to do a complete study to make sure that we understand exactly what contamination is out there, where it is going, and who might it affect. That is the purpose of the RI. It is only then that it is possible to do a good evaluation of what are the different ways that they site could be cleaned up, and which way would best once these through studies have been completes. That is the purpose of the feasibility study. So, the purpose of the cap was to address the highest risks as quickly as possible, with more time and care taken to characterize the site and identify a long-term solution.

9. Is Health and Human services determining the immediate risk of residents of the drinking water, fish consumption and direct exposure of dioxin for swimmers, fishermen, etc in the immediate Highlands community?

The Texas Department of State Health Services (DSHS) (in conjunction with the ATSDR) has completed a Public Health Assessment for the San Jacinto River Waste Pits Superfund Site and presented a summary of this document at a public meeting in Highlands in May 2011. DSHS also prepared and presented a more detailed analysis of the potential exposure pathways for the site at a January 2013 public meeting in Baytown. The most recent Exposure Pathway Analysis considered all of the above-mentioned exposure pathways and explained in considerable detail why air, groundwater, and surface water contact by swimmers are not completed pathways for this site and therefore are not a public health concern. The pathways of concern for this site included direct contact with contaminated soil or

sediment, resulting in inadvertent ingestion of soil or sediment and skin absorption of dioxins and the ingestion of fish caught from the San Jacinto River, Houston Ship Channel, or Upper Galveston Bay. As direct contact with highly contaminated sediments is no longer possible at the site (due to the EPA's time critical removal action), the only remaining pathway of concern is fish and crab consumption. The Technical Advisory Team has prepared a summary of the Public Health Assessment document, and the document and summary are both available on the Galveston Bay website.